

## **WQB "Wide Aperture Quad" for Main Injector**

12 May 2005, 9:00 AM

IB2 conference room

Attendees: Linda Alsip, Bruce Brown, Weiren Chou, TJ Gardner, Dave Harding, Jim Jablonski, David Johnson, Bill Robotham, Linda Valerio, John Zweibohmer

### **Design**

The color of the magnet was discussed. A variation of the color red is desired. Linda Alsip will provide color variation options at the next meeting.

Manifold and bus design continues. We expect to use ceramic insulators, but Linda Valerio will investigate if PEEK is preferable and report to Bill Robotham.

Alignment requirements will be provided by Dave Johnson.

The interface drawing is ready to be released, but hasn't been signed off. A draft was given to Linda Valerio. The details of the manifolding remain to be worked out, as well as the alignment blocks.

### **Beam tubes**

All the tubes are here and pass inspection, including permeability. In fact, we have one extra beyond the number we ordered, which Dave agreed to buy. (The original order included three extra.)

The swaging tools to reshape the WQB beam tube is available and work can begin on the first tube.

### **Fabrication**

The first pair of coils are successfully potted. Potting is planned for the next two, early next week. A core handling exercise is planned using the assembly clamps and roll-over fixture. Upon the success of this exercise we plan to resume stacking cores for the next magnet (scheduled for 23 May).

### **Schedule**

The schedule was updated and revised. The schedule has been updated to acknowledge our successful epoxy impregnation of the first two coils and plans for the remaining two coils, all of which go into WQB001. The revision occurs by expanding the final assembly of WQB001 with sub tasks detailing the effort to complete the first magnet.

Assembly of the first unit is now planned for 28 June with testing at MTF through 28 July.

The stacking of laminated cores is planned to resume on 23 May following the successful dry-fit of cores in a handling exercise planned within the next week.

The completion of WQB007 is now planned for 31 October 2005.

### **Beam Position Monitors**

Linda Valerio displayed the newest design of the beam detector which now has an ID of 5.500". She considers the details of the design to be understood well enough to proceed with

procurement. Adjustments to the magnet production schedule eased the need date of the beam detector.

The goal is to be ready to install one magnet if the opportunity arises. To do that we need one magnet, one BPM, and one trim power supply. The current target for readiness is July 28. The primary destination is location 608, but if the radiation level there is too high for comfortable working without a long cool down period, location 620 will be considered.

### **Power supplies**

Leon provided a junction box to Jim Jablonski who is designing its mount on the end of the magnet. TD will mount this box with a terminal block inside as the termination for the trim coil.

### **Measurement and refinement plan**

No new information was available from the MTF group.

**Next meeting in two weeks: Thursday, 26 May 2005. 9:00 AM, IB2 Conference Room**